UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/460,361	12/13/1999	AKIRA UTSUMI		2392

7590 01/28/2003

Jay P. Lessler
Darby & Darby, P.C.
805 Third Avenue
New York, NY 10022

EXAMINER	
PRATT, CHRISTOPHER C	
ART UNIT	**PAPER NUMBER**
1771	//

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Mail

AS-11

Office Action Summary	Application No. 09/460,361	Applicant(s) AKIRA UTSUMI	
	Examiner Christopher C Pratt	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-13 and 15-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-13 and 15-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Applicant's amendments and accompanying remarks filed 11/15/02 have been entered and carefully considered. Applicant's amendment is found to overcome the 112 indefinite rejection of claim 1 because, while the language is confusing, the specification explains that the entanglement-based layer is simply the "merely-entangled layer" after being subjected to a bonding step. Despite this advance, the amendments are not found to patently distinguish the claims over the prior art and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

Declaration

2. Applicant refers to a 132 Declaration filed on 6/3/02. There are no Declarations physically present in the case, nor have any been made of record.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 6-13, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nemoto et al (6102465) in view of Nagata et al (6312542), as set forth in the last two actions.

Applicant argues that the fabrics created by the combination set forth above do not possess applicant's claimed tensile strength property, which was added in the amendment of paper number 10. Applicant further argues that it would not have been obvious to increase the tensile strength of the said fabrics because to do so would decrease sound absorption. Applicant also argues that the instant invention utilizes hydro-entangling, which provides increased tensile strength over a needling process. Neither Nemoto nor Nagata seem to disclose hydro-entangling.

First, the examiner notes that the layer at issue in claim 1 is a nonwoven fabric bonded with thermally-fusible fibers. The claims require that this bonded layer have a tensile strength of "higher than" 150. The claims refer to the prebonded tensile strength of this layer; however, the final product determines patentability, not the properties of intermediate products used to achieve the final product. Such intermediate properties are only germane to the issue of patentability to the extent that they are manifest in the final product.

Here, if a nonwoven fabric has a certain tensile strength and then said fabric is bonded, this tensile strength will increase. As is commonly understood in the art, tensile strength will increase in proportion to the amount of bonding, i.e., more bonding equals more strength. Applicant's specification also confirms this principle (bridging paragraph of p. 3-4). Applicant's claims do not specify any level of bonding or the amount of thermally-fusible fibers used. Therefore, the claims only require said layer (the final product) to have a tensile strength higher than the immediate product, i.e. higher than 150.

As applicant's examples show, mere needling of a fabric results in a tensile strength of 100. The skilled artisan would expect this value to vary according the amount of needling, the density of the needle bed, and the type of needle used (barbed needles result in increased entanglement and therefore increased strength). However, assuming the initial tensile strength is about 100 Nemoto also teaches the use of thermally-fusible fibers. Nemoto is silent with respect to the percentage of said fusible fibers and leaves the issue entirely up to the skilled artisan to determine through routine experimentation (col. 4, lines 60-64).

It is the examiner's position that it would have been obvious for a person having ordinary skill I the art to use enough thermally fusible fibers in Nemoto's fabric to achieve a tensile strength above 150. Nemoto teaches the desire for a "low spring" layer "required for suppressing transmission of vibration (col. 4, lines 66-67)." This low spring layer would require a necessary rigidity and strength. In order to keep the individual fibers from vibrating, this layer would also require increased bonding. Therefore, the skilled artisan would have been motivated to create a layer having a tensile strength above 150 by the desire to create a suitable low spring layer, in accordance with the direct teachings of Nemoto. Said rejection is maintained from the last two actions.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Pratt whose telephone number is

703-305-6559. The examiner can normally be reached on Monday - Friday from 7 am to 4 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Christopher C. Pratt
January 17, 2003

CHERYL A. JUSKA
PRIMARY EXAMINER